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THE Farm Cost SITUATION

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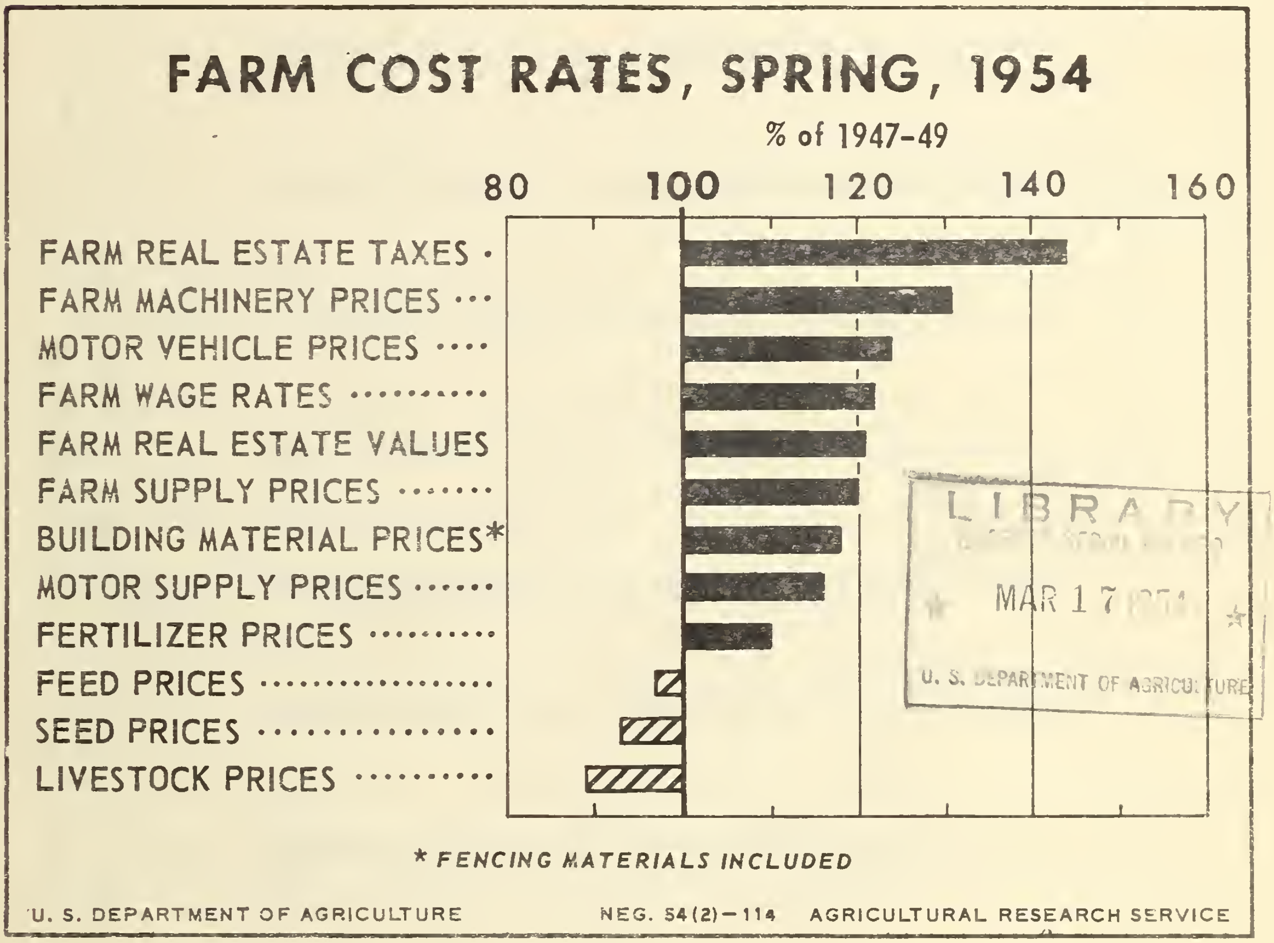

FARM COST RATES, SPRING, 1954

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Prices paid by farmers for most items used in production are considerably higher than they were in 1947-49. The items that are lower in price are mainly those that farmers buy either directly or indirectly from other farmers. Fertilizer has not gone up in price as much as production goods in general so that farmers who use more of it are usually able to reduce their costs per unit of production. Total farm production is thereby increased because other production inputs are not reduced immediately.

Goods and services used in production: Prices paid by farmers and farm wage rates, United States
Index numbers (1935-39 = 100)

Year	Commodities, interest, taxes and wage rates 1/	Commodities only	Feed	Livestock	Motor supplies	Motor vehicles	Farm machinery	Farm supplies	Building and fencing materials	Ferti-lizer	Seed	Wage rates 2/
1910-14	79	80	95	81	---	---	65	71	69	98	84	82
1915-19	118	121	149	123	---	---	85	117	97	141	127	122
1920-24	131	117	133	94	---	---	101	130	116	141	124	149
1925-29	131	116	127	123	127	89	101	123	111	129	123	152
1930-34	101	90	85	71	99	89	95	103	96	106	81	100
1935-39	100	100	100	100	100	100	100	100	100	100	100	100
1940	100	99	95	115	96	101	100	104	101	96	86	107
1941	106	105	103	130	99	107	101	111	108	96	82	125
1942	121	119	126	152	106	116	107	123	118	107	111	163
1943	138	132	149	173	109	121	111	137	123	114	139	217
1944	148	140	165	163	111	131	114	144	131	116	158	263
1945	156	142	164	178	111	135	115	146	134	118	162	297
1946	168	154	190	202	113	139	119	147	146	119	167	320
1947	192	181	225	252	124	161	135	159	191	131	192	346
1948	211	202	238	312	138	181	157	169	212	143	223	365
1949	204	192	196	277	140	199	176	176	210	147	202	354
1950	210	198	200	324	143	199	180	176	215	141	193	351
1951	232	220	225	395	150	212	194	189	239	149	197	388
1952	237	221	239	331	151	222	201	200	240	153	223	416
1953	227	204	216	234	154	224	203	202	241	154	205	424
Jan.	234	214	232	275	---	223	---	---	---	---	---	425
Feb.	232	210	228	265	---	---	---	---	---	---	213	---
Mar.	232	210	227	266	151	225	203	204	241	154	210	---
Apr.	229	207	223	248	---	224	---	204	---	154	205	420
May	229	207	220	250	---	---	---	---	---	---	201	---
June	223	200	215	204	152	224	204	201	241	---	---	---
July	225	202	212	220	---	224	---	---	---	---	---	425
Aug.	225	201	211	214	---	---	---	---	---	---	---	---
Sept.	223	199	210	210	156	223	204	199	240	154	197	---
Oct.	222	198	206	208	---	---	---	---	---	---	---	426
Nov.	224	200	204	223	---	---	---	---	---	---	---	---
Dec.	225	202	210	223	157	223	204	202	241	---	---	---
1954												
Jan.	230	205	212	251	---	224	---	---	---	---	---	434
Feb.	230	206	214	251	---	---	---	---	---	---	192	---

1/ Revised to reflect revisions in interest and tax indexes. 2/ Simple average of quarterly indexes seasonally adjusted.

Note: For a list of items included in this table see "Agricultural Prices," Bureau of Agricultural Economics, September 30, 1953.

THE FARM COST SITUATION

Approved by Outlook and Situation Board, March 4, 1954

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GENERAL SITUATION

The cost-price squeeze has changed little since last fall. While prices received for farm products have risen prices paid for items used in production also have increased. Prices paid for feed and for feeder and replacement livestock have risen from the lows of last fall but are still somewhat below a year earlier. Prices paid for industrial items are at about the same level as a year ago. There is little indication at this time that the cost-price relationships in agriculture will be changed materially during the remainder of 1954.

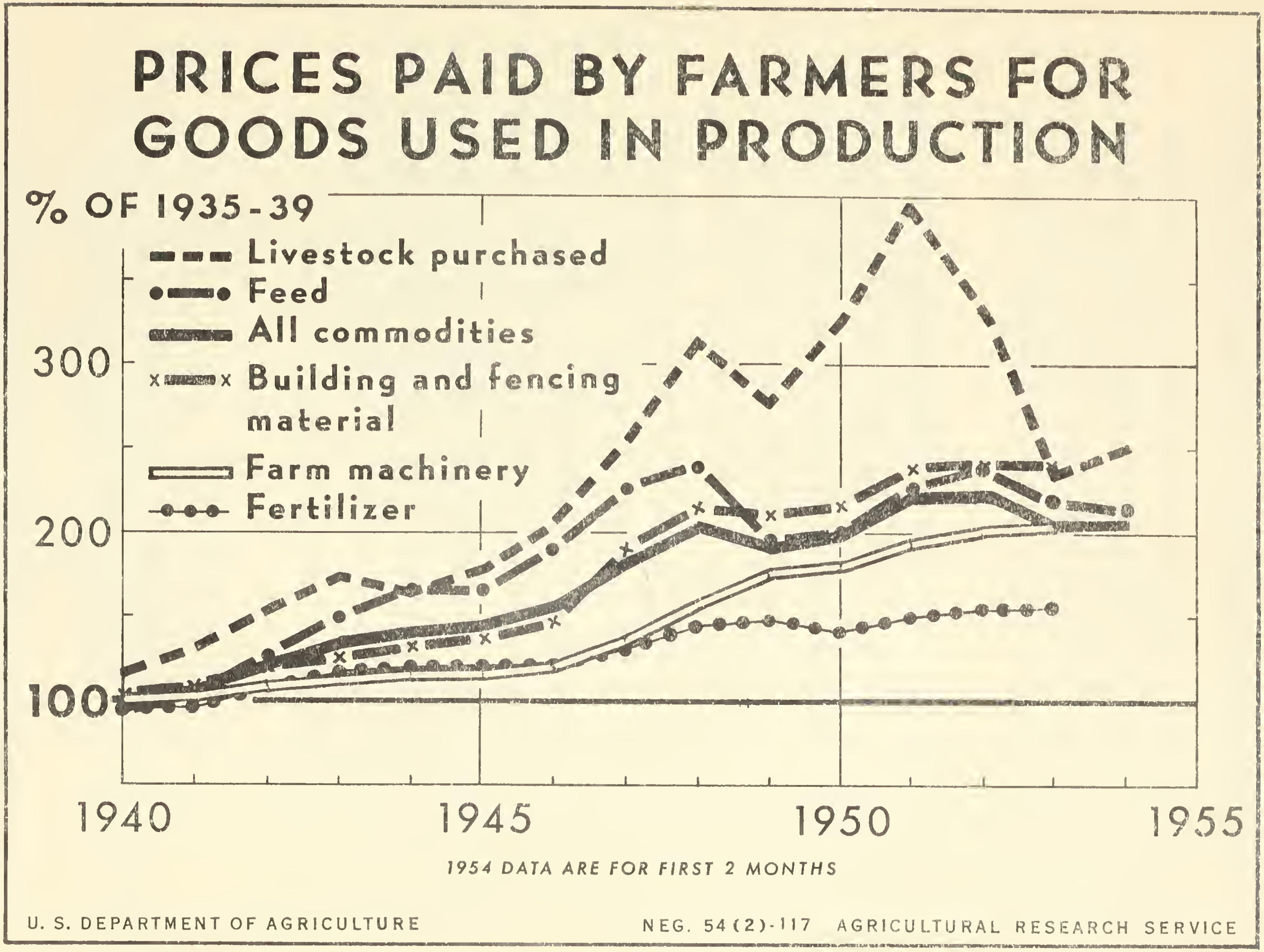
Among the cost-items of most direct concern to farmers this spring are seed, fertilizer, motor supplies and hired labor. Average farm wage rates for the country as a whole are slightly higher than a year ago, but may ease off slightly and likely will not differ greatly from those of 1953. The number of workers available is expected to be greater than last year reflecting an easier employment situation in the economy generally but this will differ among areas. The demand for farm labor in the South may be reduced in view of the acreage restriction on cotton.

Prices paid for seeds are averaging about 10 percent lower than a year ago. Certain kinds such as Ladino clover, Sudangrass, crested wheatgrass, alsike clover, smooth brome, improved varieties of alfalfa, and Kobe lespedeza are among the important seeds for which prices are now lower than a year ago. Kentucky bluegrass, redtop, sweet clover, common ryegrass, soybeans and seed oats are among the important ones for which prices are higher than a year ago. It generally is poor economy to attempt to pare cash costs by substituting lower yielding varieties for higher yielding ones, but farmers can cut cash outlays in some instances by using home-grown seeds.

Prices of motor supplies (fuel, oil, lubricants, etc.) are slightly higher than a year ago. Purchases of these items represent direct cash outlays. Farmers can cut these costs some by careful planning of work programs, careful loading of power units, and performing work at proper time.

Current price quotations for fertilizers are averaging about the same as a year ago. Some kinds are slightly higher while some are lower. There are indications that fertilizer prices as a whole will average slightly lower for the current season. Relative to prices paid for many other items used in production and to prices received for farm products, fertilizer is still a good buy (fig. 1). Farmers will find it advantageous to continue their pasture, hay and crop improvement programs.

Prices paid for farm machinery and motor vehicles have increased about 1 percent from a year ago and now are at record high. During the last year cash discounts and trade-in allowances have been more liberal and probably will continue so in 1954.



PRICES PAID BY FARMERS FOR GOODS USED IN PRODUCTION

1954 DATA ARE FOR FIRST 2 MONTHS

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FIGURE 1

Prices paid for lumber, particularly top grades, cement, housepaint, asphalt shingles, and composition roofing are higher than a year ago. On the other hand, prices paid for galvanized roofing and baler and binder twine are lower. On the average prices of building materials and farm supplies are about the same as a year earlier and little change is expected during 1954. Supplies are generally adequate to meet expected needs.

Farm real estate values are now averaging around 8 to 10 percent lower than a year ago. Interest rates charged on farm real estate mortgages have been relatively steady during the past year, but are slightly higher than in 1952. Farmers with reasonable equities and good repayment prospects probably will experience little difficulty in obtaining mortgage credit. Lenders are putting more emphasis on operating efficiency and expected income and expenses of prospective borrowers.

Farm real estate taxes are continuing their upward trend. These taxes levied in 1953 and payable largely in 1954 are expected to increase by around 4 or 5 percent. Rates charged for insurance on farm property by farm mutual insurance companies have not changed during the past year, and no increase is expected in 1954. Farmers are paying higher premiums because they have increased the coverage more in line with value of property.

Farm Labor

On an average, farm wage rates in 1954 likely will not be greatly different from 1953. Some increase in the over-all supply of farm labor and some decrease in labor needs are expected compared with last year. However, the labor supply and demand, and wage rates are expected to vary among regions.

Several factors point toward changes in the farm labor situation in the South. The national cotton acreage allotment for 1954 is about four million acres less than the 1953 planted acreage. If acreage in cotton is reduced by 4 million and an average yield is obtained, total man-hour requirements for cotton would be reduced by about 20 percent.

The net effect on total labor requirements of cotton acreage allotments, of course, will depend on what use is made of the diverted acres. Replacement of cotton by labor intensive crops would mean little net change. Feed crops, on the other hand, would take much less labor per acre than cotton. The net effect of acreage allotments, average yields and average weather would be to reduce significantly the demand for seasonal farm workers, especially during the cotton chopping and picking seasons.

If non-farm job opportunities in the South and elsewhere should decrease significantly this would add to the supply of farm labor in the South. Most important would be a reduction in the number of persons of working age migrating from southern farms. Also adding to the supply would be the return to the South of some workers, formerly employed on southern farms who would be released from non-farm jobs in other regions. An increase in farm labor supply from these sources, plus reduced man-labor, requirements for cotton, would tend to build up the labor supply, and possibly result in lower wage rates in this region.

Some increase in the supply of farm labor and little change in wage rates from 1953 probably will be the pattern in other broad regions. In the highly mechanized wheat and corn areas, acreage allotments likely will result in little change in total labor requirements. The crops substituted for wheat and corn probably will take about as many man-hours as would the wheat and corn. The total man-hours worked in agriculture probably will continue to decline (table 1 and fig. 2).

The supply of experienced year-round workers is expected to continue tight generally. Offshore domestic workers are expected to be available again for seasonal contract farm work. Efforts are continuing to negotiate an international agreement with Mexico so that Mexican Nationals may be employed again. Workers from Canada and the British West Indies also will be available.

Farm Power and Machinery

Wholesale prices of farm machines and equipment including tractors are now about 12 percent higher than in June 1950 and about 75 percent higher than the average prices in the prewar period 1935-39. Prices since January 1, 1951, have been relatively stable and probably will show little change in 1954. Wholesale price quotations for tractors and machines ordinarily do not include all the attachments and accessories commonly sold to farmers in any given year.

Retail prices in 1953 were a little more than double the prewar prices. However, modern machines are much better equipped than prewar models. Then, too, freight rates have increased substantially in recent years. During the past year cash discounts and trade-in allowances have been more liberal and probably will continue so in 1954.

Table 1.- Farm wage rates and related data, United States, 1935-39 average and 1940-53

Index numbers (1935-39=100)

Period or year	Farm employment			Man-hours of farm work 2/	Farm output 3/		Gross farm income per man-hour 4/	Farm wage rates 5/
	Total 1/	Family 1/	Hired		Total	Per man-hour		
1935-39	100	100	100	100	100	100	100	100
1940	92	91	94	98	110	112	107	107
1941	89	88	93	97	114	118	136	125
1942	88	87	89	101	128	127	177	163
1943	87	88	85	100	125	125	220	217
1944	85	87	78	100	130	130	232	263
1945	83	86	74	95	129	136	257	297
1946	86	89	76	93	133	143	300	320
1947	87	89	79	91	128	141	360	346
1948	86	88	82	89	138	155	374	365
1949	83	84	79	89	137	154	344	354
1950	78	79	73	83	136	164	372	351
1951	75	77	69	86	139	162	414	388
1952	72	74	67	83	144	173	424	416
1953 6/	72	73	68	82	144	176	412	424

1/ Includes farm operators and members of their families working without wages.

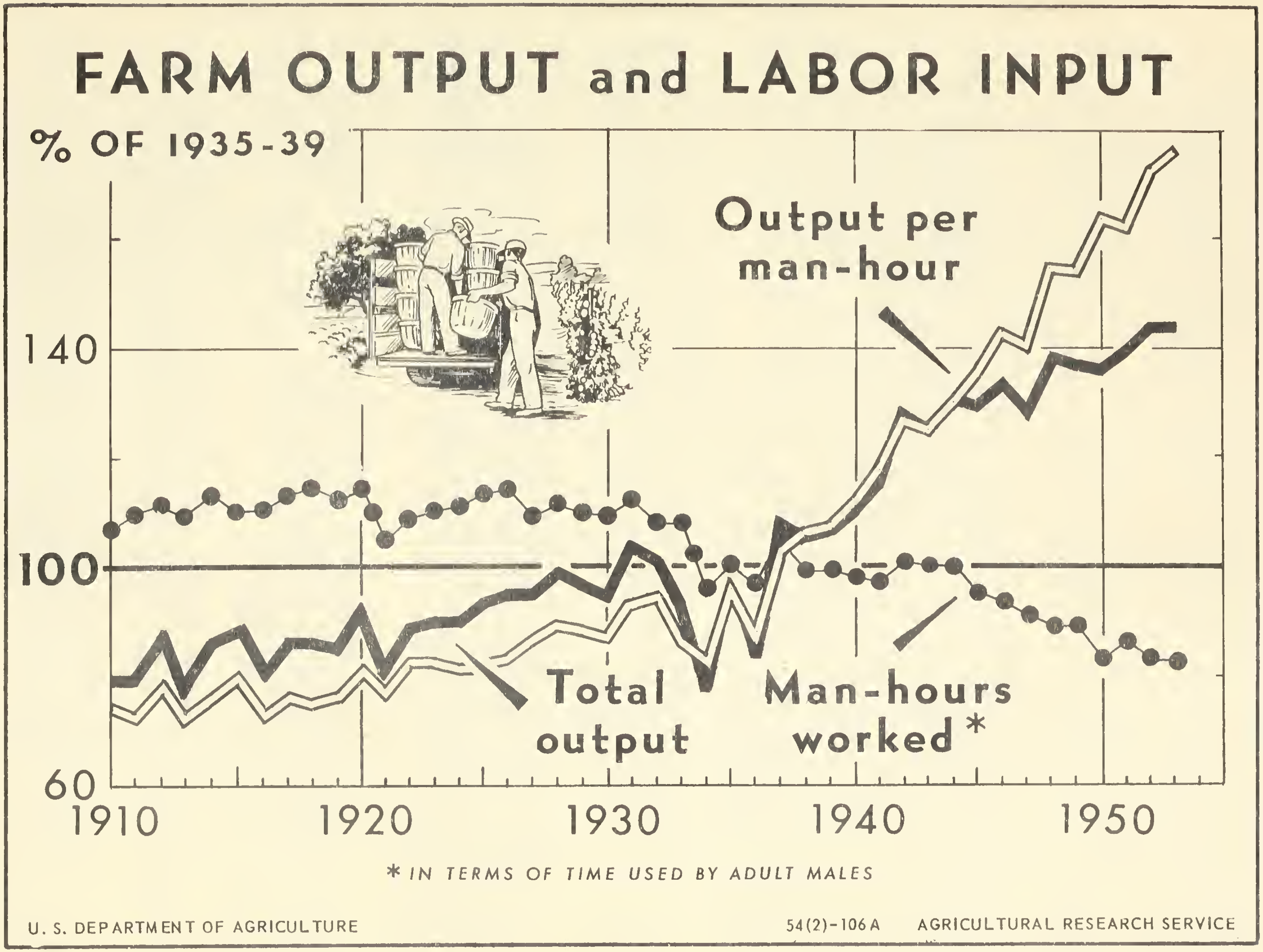
2/ Total man-hours of farm work in terms of the time required by average adult male workers.

3/ Net calendar-year production for eventual human use.

4/ Because of the increase in volume of output and the increase in the price of farm products, gross farm income per man-hour has increased at about the same rate as have farm wage rates from the prewar years of 1935-39 to 1953.

5/ Simple average of quarterly indexes seasonally adjusted.

6/ Preliminary. Estimates of farm output and man-hours for 1953 based chiefly on December 1953 report of the Crop Reporting Board.



* IN TERMS OF TIME USED BY ADULT MALES

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FIGURE 2

Farmers' expenditures for machinery in relation to income have been high since 1947. Following the outbreak of War in Korea, farmers spent a higher percentage of their income for machinery in 1950 and 1951 than in any previous year (fig. 3). In 1952, however, expenditures declined appreciably and in 1953 were probably about 9 percent below 1952.

Exports of farm machinery in the first 10 months of 1953 were about the same as for the same months of 1951 and 1952. Exports of crawler tractors increased in 1953, accounting for about one-fourth of total exports.

Preliminary estimates indicate that on January 1, 1953 there were 4.4 million tractors of all types on farms, along with 940,000 grain combines and 635,000 corn pickers. About 700,000 farms were equipped with milking machines. On January 1, 1940, about four months after the outbreak of World War II, there were about 1.5 million tractors, 190,000 grain combines, and 110,000 corn pickers; and 175,000 farms were equipped with milking machines. There were about 2,500,000 motortrucks on farms January 1, 1953 compared with 1,047,000 on January 1, 1940. Further increases in numbers of motortrucks occurred during 1953. On the other hand, numbers of automobiles on farms have shown but little increase for several years. There were around 4.4 million automobiles on farms January 1, 1953. This is only about 10 percent more than were on farms in 1930 or 1940.

The number of horses and mules on farms January 1 at 5.0 million head is the lowest on record and only 32 percent of the number in 1935-39 (table 2). Despite this decline the total volume of machinery and power (including work animals) is now about 90 percent greater than in 1935-39.

Numbers of the major machines on farms can be expected to increase in the years ahead, but the increase will be much below the high rate in recent years. In most areas of the country, agriculture has become mechanized and the present machines and equipment are about sufficient to maintain agricultural production at a high level. Machinery replacements are becoming an increasingly important factor in determining the volume of purchases.

Because of increased farm mechanization and higher prices operating and depreciation costs have become major items of expense. On 160-acre hog-dairy farms in northeastern Iowa the total of these two items increased from about $500 in the 1930's to nearly $2,000 in 1953 (fig. 4). Further increases are probable in 1954.

In the replacement program some farmers may find it advantageous to exchange the machinery and equipment they now have for larger sizes. There is a point, however, beyond which increased mechanization will not pay.

There is little doubt, for example, that most farms in the Corn Belt can be operated more efficiently with tractors than with horses. But all farmers in that region cannot economically replace 2-plow tractors and 2-row equipment with 3-plow tractors and 4-row equipment as many farmers in the Corn Belt are doing.

Table 2.- Farm power and machinery and related data, United States, 1935-39 average and 1940-53

Index numbers (1935-39 = 100)

Year or period	Number on farms, January 1 1/						Volume on farms, January 1 2/		Gross farm income calendar year 3/	Prices received by farmers
	Horses and mules all ages	Work stock 3 years old and over	Colts under 1 year of age	Tractors	Automobiles	Motortrucks	All machinery and equipment other than tractors and other motor vehicles	All farm power (including work animals) machines and equipment		
1935-39	100	100	100	100	100	100	100	100	100	100
1940	92	89	101	124	106	108	118	106	105	93
1941	90	87	98	135	111	113	126	109	132	115
1942	87	84	85	152	120	119	141	116	179	148
1943	84	83	69	169	112	132	158	121	220	180
1944	80	81	62	178	107	142	162	121	232	184
1945	76	77	54	195	106	153	178	126	244	193
1946	71	73	42	206	109	159	197	131	272	221
1947	64	67	35	220	112	175	219	137	328	258
1948	59	62	31	240	108	195	252	147	333	268
1949	54	57	28	266	110	212	286	158	306	234
1950	49	52	23	290	108	227	310	166	309	241
1951	45	48	19	317	110	237	337	175	356	282
1952	40	42	16	335	112	248	366	184	352	269
1953	35	38	15	354	113	257	379	188	338	241
1954 4/	32	34	14							

1/ The 1935-39 average was for horses and mules all ages, 15,750,000 head; for workstock 13,700,000 head; for colts 744,000 head; for tractors 1,244,000; for automobiles 3,896,000; and there were 973,000 motortrucks.

2/ In terms of 1935-39 prices.

3/ Includes Government payments.

4/ Preliminary.

A recent study in the Corn Belt indicates that for every hour of labor saved by using the larger rather than the smaller tractor equipment the machinery cost is increased by about 90 cents. This is almost as much as farmers pay for labor that is hired by the hour and it is more than the hourly earnings of many farm operators who must decide whether to invest in larger equipment or try to get along with what they have.

The field work on a 225-acre cash grain farm in the Corn Belt can be done in about 200 fewer hours where the larger equipment is used than where the smaller equipment is used. The machinery cost is, however, about $180 a year higher where the larger equipment is used.

Some farmers can afford to pay $180 for 200 hours of additional leisure time but few farmers with less than 200 acres of cropland can justify the purchase of larger equipment on the ground that it would reduce their costs or increase their net incomes.

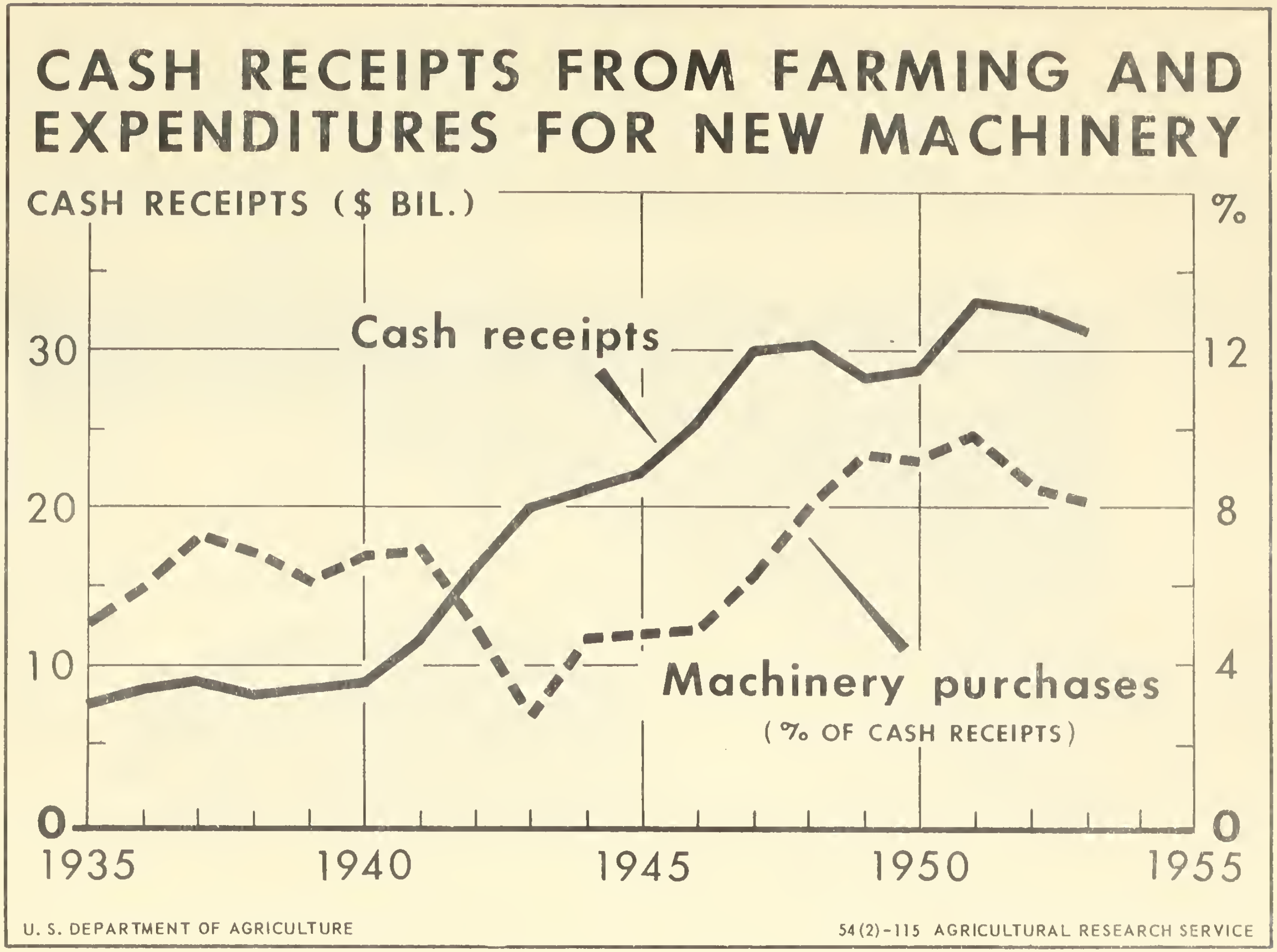
Farm wage rates have been high relative to prices of machinery and tractor fuel for so long that many farmers have made full adjustment to the present price relationships. The statement that increased mechanization would reduce costs and increase efficiency applies to a much smaller number of farms today than 10 years ago. The answer to the question of whether it would pay to invest in larger equipment often hinges on whether the size of the farm can be increased, and on the greater production obtained by getting work done at the proper time.

Despite the recent decline in farm earnings competition for available land is very great in most farming areas. The large number of farmers who need more land to make efficient use of the equipment they now have makes it advisable for a farmer to know where he can obtain the land before he buys equipment to operate more land.

Feed

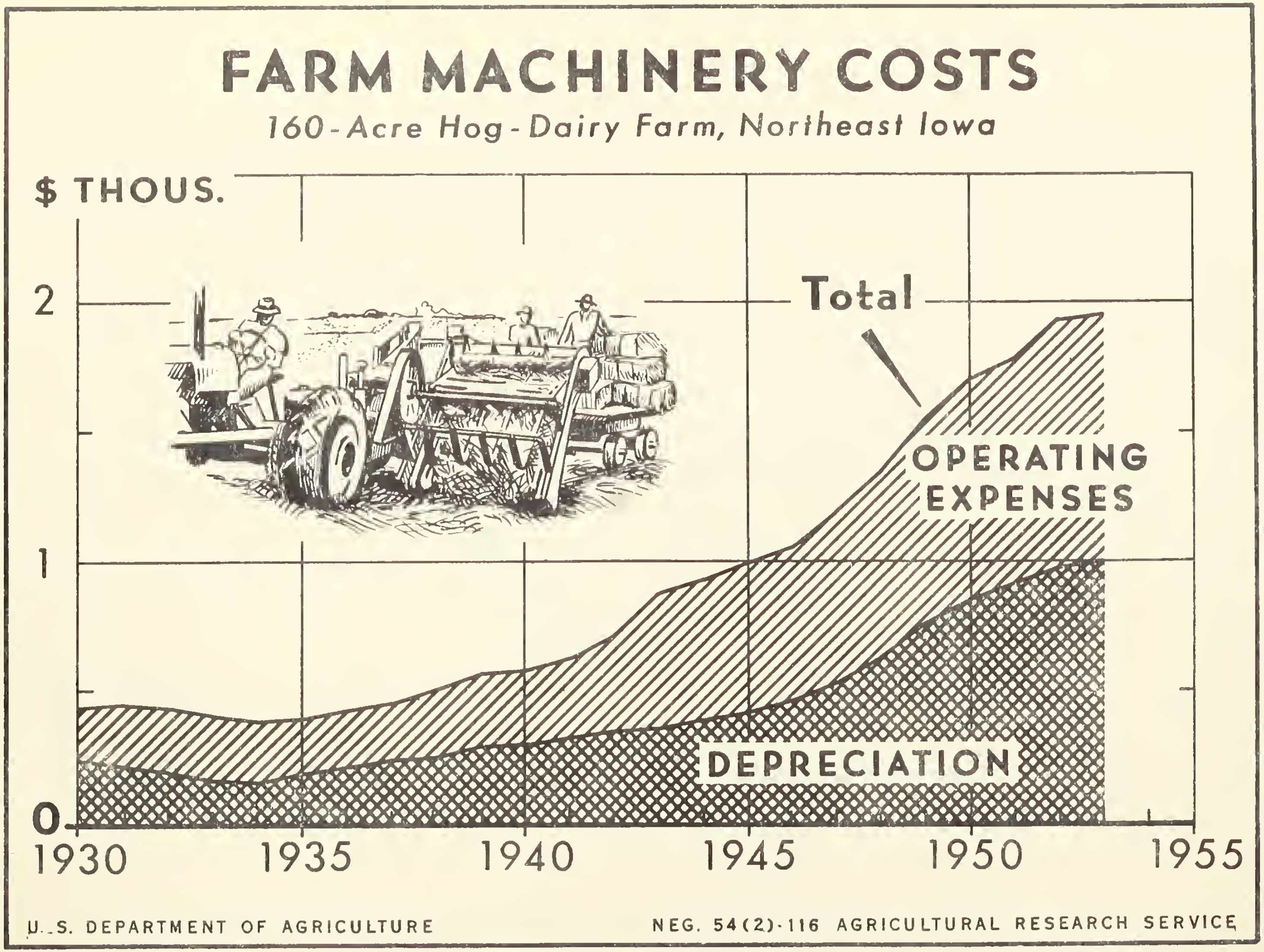
The supply of feed grains is ample for all current needs and the carryover next fall probably will be up about 10 percent from a year earlier and near the record 1950-51.

Compared with a year earlier the number of milk cows on January 1 was up about 3 percent, cattle on feed down 9 to 10 percent, other beef cattle up 1 to 2 percent, the size of the laying flock was up 2 to 3 percent, and the number of horses and mules was down 9 percent. It is expected that broilers will be up 5 percent from 1953 and that farm chickens raised also will increase. Farmers' January intentions were to raise 6 percent more heavy-breed turkeys and 9 percent more of the light breeds. The fall pig crop of 1953 was 9 percent below a year earlier, but farmers intended to have 6 percent more sows farrow 1954 spring pigs than last year. In total, there are about 2 percent fewer grain-consuming livestock in the current feeding year, beginning October 1, 1953.



Farmers' purchases of new machines (excluding automobiles and motortrucks) and repair parts were at high levels from 1949-1951 and amounted to more than 9 percent of the total cash receipts from farming in each year. During the prewar period (1935-39) farmers spent around 6 percent of their cash income for new machinery. Expenditures for machinery in relation to farm income was low during the war years when machinery production was restricted. Following the outbreak of war in Korea, farmers spent a higher percentage of their income for machinerv in 1950 and 1951 than in any previous year. Farmers reduced their purchases of new machines in 1952 and 1953.

FIGURE 3



Farm machinery costs on these farms are roughly four times as high as they were in the early 1930's. Increases in prices of farm machinery and motor supplies account for about half of this increase. The other half is due to greater use of machinery on these farms. The fact that prices paid for farm machinery and motor fuels went up relatively less than farm wage rates following the outbreak of World War II caused farmers to use more machinery and less labor.

Figure 4

The 1953-54 hay supply, estimated in December at 120 million tons, is about the same as a year earlier, and the number of roughage-consuming animals is up about 1 percent. Numbers of hay-consuming livestock have been trending upwards. The supply of hay per unit is about 4 percent below the 1946-50 average. Supplies of hay in most of the northern and western States have been ample, but were short again this year in much of the South and Southwest. In addition, pastures were poor this past fall and increased feeding of hay and other feeds was necessary in many areas. Substantial shipments of hay, cottonseed meal and cake, and other feeds have been made to farms in these areas under the drought relief program.

In February prices paid by farmers for feeds averaged about 6 percent below a year earlier (table 3). Feed prices in general probably will be near those of a year earlier during the next few months. Prospects for 1954 feed grain crops will become important factors in influencing feed prices in the early summer. The index of prices of all livestock and livestock products on February 15, 1954 was the same as a year earlier. The price of all livestock and livestock products except eggs, wool, and hogs, were lower. Prices received for hogs were 31 percent higher, but prices received for beef cattle were down 14 percent and lambs were down 6 percent.

Compared with a year ago returns per dollar of feed costs are higher for all livestock and livestock products except broilers, beef cattle and milk. Returns for hogs and eggs are substantially above the 1937-51 average (table 4). Returns for raising sheep, beef cattle and broilers are about 20 percent below the 1937-51 average.

At present many farmers are in a cost-price squeeze. Some who have livestock enterprises that are clearly and basically unprofitable will have to shift into other enterprises that offer better promise of a profitable outcome. But there are many farmers with enterprises that are unprofitable under present price-cost conditions who could make adjustments in the enterprise to make it profitable. These adjustments involve in some cases handling larger numbers of livestock with the same labor or in remodeling buildings and operations so that less labor will do the job. Other opportunities to increase net returns include the use of higher producing animals, following improved feeding practices or using better quality hay and pasture and less grain and high protein feeds.

For some livestock, especially hogs, it may be that more high protein feeds will save enough grain to more than pay for the protein feeds, especially in early stages of growth. Many farmers in the Corn Belt still feed only half as much protein to hogs as is profitable. On the other hand, some dairymen feed formula-feeds with the same percentage protein when cows are on good pasture in the summer as they do in the winter on dry-lot. This is usually a waste of feed in the summer and an unnecessary cost.

Table 3.- Average prices of feeds in the United States, February 15, 1954 with comparisons

Item	Unit	Feb. 15, 1952	Feb. 15, 1953	Sept. 15, 1953	Feb. 15, 1954
Prices received by farmers					
Corn	Bushel	$ 1.66	$ 1.43	$ 1.50	$ 1.43
Oats	do.	.89	.77	.71	.78
Barley	do.	1.38	1.28	1.12	1.15
Sorghum grain	Cwt.	2.51	2.65	2.26	2.32
Hay, baled	Ton	25.40	25.60	20.90	23.70
Feed grains and hay, Index number (1935-39 = 100)		247	223	216	217
Prices paid by farmers					
Mixed dairy feed 16%	Cwt.	4.45	4.19	3.90	3.99
Laying mash	do.	5.31	5.02	4.80	4.86
Broiler mash	do.		5.38	5.22	5.26
Cottonseed meal	do.	5.10	5.03	3.72	4.02
Soybean meal	do.	5.30	4.93	4.60	5.01
Linseed meal	do.	4.97	5.36	4.60	4.91
Meat scrap	do.	6.74	5.76	5.37	5.43
Bran	do.	4.04	3.58	3.11	3.27
Middlings	do.	4.12	3.65	3.26	3.33
Alfalfa hay, baled	Ton	39.60	39.30	33.60	35.90
Prices paid by farmers for feed, Index number (1935-39 = 100)		243	228	210	214
Average value of concentrate ration fed to poultry and milk cows 1/					
Fed to poultry	Cwt.	4.25	3.96	3.82	3.86
Fed to milk cows in milk selling areas	Cwt.	3.88	3.69	3.40	3.44
Fed to milk cows in cream selling areas	Cwt.	3.47	3.22	2.99	3.06

1/ Value of the corn, oats, oil meal, millfeed, formula feed, etc., making up 100 pounds of "grain" ration.

Table 4.- Returns per $1.00 of feed cost of livestock enterprises, United States, Feb. 15, 1954, with comparisons 1/

Livestock enterprise or product	1937-51 average	Feb. 15, 1952	Feb. 15, 1953	Sept. 15, 1953	Feb. 15, 1954
	Dollars	Dollars	Dollars	Dollars	Dollars
Eggs	1.50	1.16	1.52	1.93	1.69
Broilers	1.64	-	1.59	1.61	1.32
Milk	1.93	2.00	1.85	2.03	1.81
Butterfat	1.53	1.71	1.33	1.45	1.35
Hogs	1.67	1.29	1.65	1.96	2.16
Sheep raising	1.60	1.54	1.27	1.39	1.32
Beef raising	1.76	2.20	1.61	1.47	1.42
Cattle		1952-53		1953-54	
feeding	2/ 1.25	.72		3/	
	(Index numbers 1937-51 = 100)				
	Percent	Percent	Percent	Percent	Percent
Eggs	100	77	101	101	113
Broilers	100	-	97	98	80
Milk	100	104	96	94	94
Butterfat	100	112	87	85	88
Hogs	100	77	100	119	129
Sheep raising	100	96	79	82	82
Beef raising	100	125	91	80	81
Cattle		1952-53		1953-54	
feeding	100	58		3/	

[1] The following quantities of feed were used in calculating feed cost: 7 pounds of poultry ration per dozen eggs; 4½ pounds of chick starter per pound of broiler in 1935-39. In 1951 and 1952, 3¼ pounds of chick starter and in 1953, 3¼ pounds of broiler mash. No prices available on broiler mash before 1953. 7¼ bushels of corn plus 20 pounds of soybean meal per 100 pounds of hogs; 30 pounds of concentrate ration fed to milk cows in milk selling areas plus the value of 110 pounds of hay, per 100 pounds of milk; 7½ pounds of concentrate ration fed to milk cows in cream selling areas plus the value of 27.5 pounds of hay in Minnesota and Iowa, per pound of butterfat; 3 bushels of corn plus 600 pounds of hay per 100 pounds of beef cattle; 2 bushels of corn plus 1,500 pounds of hay per 100 pounds of sheep and lambs. It was assumed that for each 100 pounds of sheep and lamb produced 20 pounds of wool were produced from the same feed. The quantity of hay for milk cows, beef cattle and sheep includes an allowance for silage and pasture. It was assumed that the feed nutrients from pasture would cost ¼ as much per pound as they would if obtained from hay. Cattle feeding returns are based on table 3, Livestock and Meat Situation, Aug.-Sept., 1953. It is designed to represent average feeding experience in the Corn Belt.

[2] 1920-52 average. [3] Season not completed.

Improvement in the quality of roughage fed by many dairy farmers could result in equal or greater production with less grain and high protein feeds. Some of these adjustments to a lower cost can be made immediately. Others such as pasture improvement take time, perhaps several years. Some of these changes require large cash outlays and thus are more difficult for many farmers to adopt. The decision as to whether such outlays should be made depends largely upon whether they will result in lower costs per unit of product and larger net income over a period of years.

Farmers producing turkeys and broilers should study the differences in feed efficiency among different strains of birds. They should also study the costs of different feeds available. The higher priced feed is not always the most efficient in feeding operations. The producer also should consider carefully the weight at which birds are to be marketed as the feed cost per pound goes up fast with every pound increase in weight of bird marketed. Good pasture for turkeys, if handled properly, will save considerable feed. 1/

Seeds

Prices farmers will pay for most grass and legume seeds this spring will be lower than last spring. Sharpest declines from last year are reported for Ladino clover, Sudangrass, crested wheatgrass, alsike clover, smooth brome, improved varieties of alfalfa, and Kobe lespedeza seed. Of the 18 grass and legume seeds that are sown mostly in the spring and for which production estimates were made in 1953, February retail prices were higher than a year earlier for only three--Kentucky bluegrass, redtop, and sweetclover. Prices are lower for German and Siberian millet, Orange sorgo, rapeseed, Canada field peas, hybrid and open-pollinated seed corn, cowpeas, cottonseed, and seed wheat, barley, and potatoes. But prices of common ryegrass, soybeans, and seed oats are higher.

The supply (1953 production plus carry-over) of the 18 seeds was 722 million pounds, 9 percent less than for the preceding season but 4 percent above the 1942-51 average. Imports of these seeds during the last 6 months of 1953 totaled 36 million pounds, 11 percent smaller than for the same period a year earlier but 29 percent above the average for the previous 5 years. Supplies (including imports) of alfalfa, red clover, alsike clover, Ladino clover, timothy, crested wheatgrass, Sudangrass, and tall fescue seed are more than 25 percent greater than the quantity sown during the 1952-53 planting season. Supplies of white clover, Kentucky bluegrass, and redtop, however, are only about half as much as were sown a year ago. The supply of lespedeza seed is nearly a third less than was used last year.

Demand for grass and legume seeds is expected to be high this season because some acreages formerly in cotton, corn and wheat probably will be seeded to hay and pasture and because forage crops in many sections will require some reseeding due to the severe drought last summer. Farmers probably will profit by buying early the seeds they expect to sow this spring.

1/ See special article on "Cost Reduction Opportunities in Egg Production", page 35.

Fertilizer

Prices paid for fertilizers during the 1952-53 season averaged about 2 percent higher than in 1951-52. Prices as a whole may average lower this season. Prices of some kinds will show little change.

For the 12 months ended June 30, 1953 the available supply of major plant nutrients exceeded all previous records. According to information at hand, the supply available for 1953-54 will again reach a new high.

The aggregate 1953-54 supply of the three major plant nutrients is presently forecast at about 11 percent above 1952-53, and should be ample to satisfy expected demands.

Nitrogen (N): The supply of nitrogen (N) available for fertilizer purposes in 1953-54 is currently estimated at slightly over two million tons. This is based on current rates of production and scheduled completion of new synthetic ammonia facilities, and assumes about the same import-export balance as in 1952-53. This represents an increase of a little over 11 percent above the reported 1952-53 supply.

The supply of solid nitrogen materials (dry nitrogen) available for 1953-54 probably represents around 60 percent of the total supply, and solutions and liquid materials (wet nitrogen) amount to 40 percent. For the previous year these percentages, based on trade deliveries, were approximately 62 and 38 percent.

Phosphates (P_2O_5): The supply of available phosphates for 1953-54 is presently forecast at 2,667,000 tons, available phosphoric oxide (P_2O_5) basis. This estimate is based on current information with regard to the completion dates of new plants, trends in use, and available production data.

The supply of available phosphoric oxide for the current season probably will be about 10 percent above the 2,414,000 tons which were put into domestic trade channels in 1952-53. The new plant capacity scheduled for completion in 1953-54 involves a sizable tonnage of concentrated superphosphate, which should increase substantially the supply of this material now available in relation to the total quantity of P_2O_5.

Potash (K_2O): Considering the probable increase in domestic production, and assuming approximately the same import-export balance as in 1952-53, a 1953-54 supply of 1,941,000 tons of potash (K_2O) is forecast. This amount is about 12 percent above the reported 1952-53 supply of 1,739,000 tons and reflects production from new facilities as well as increases from older producing units.

Profitable use of fertilizer: Farmers should consider the farm as a whole when deciding how to distribute the fertilizer they plan to apply. They also need to consider the total effects of fertilizer used. Use of fertilizer can intensify the problems of an already unbalanced agriculture, or it can aid in bringing it into better balance.

The way the farmer uses fertilizer on all his land, including diverted acres, can greatly influence the success of the adjustment program in general, and the success of the individual farmer in making needed changes on his own farm.

Use of fertilizer and other yield influencing practices is a matter of particular importance in 1954. Farmers can, of course, lower average costs per unit of yield and increase net returns per acre by using fertilizer up to the most profitable rate. This is as true for "surplus" crops as for other crops. But for crops under control programs, application of fertilizer at most profitable rates for the individual farmer may in the short run tend to accentuate the surplus problem. Eventually the burden of this problem must be shared by the individual farmer.

For example, in 7 southeastern States, acreage allotments for next year indicate that about 1,650,000 acres will be diverted from cotton to other uses. If all farmers used the most profitable rates of fertilizer on the remaining acres of cotton, the increase in yield per acre over 1953 yields could result in producing more cotton on the smaller acreage than was produced on the larger acreage in 1953.

The problem of holding down farm costs in relation to prices and incomes in the long run is largely one of making changes in farm enterprises and practices to conform to changes in supply-demand relationships. In keeping with the long-time prospects for relatively favorable demand for livestock and livestock products farmers generally will find advantageous the use of fertilizer in initiating the shift of diverted acres to hay and pasture.

Building Materials and Farm Supplies

There have been no appreciable changes in the cost of farm building materials since March 1951. But, it takes about $2.70 to buy as much in the way of building and fencing materials now as $1.00 bought in 1935-39.

Prices paid by farmers for 40 different items of building materials are reported in the January issue of Agricultural Prices. Twenty of these items were higher in price on December 15, 1953 than a year earlier, 15 were lower in price and 5 were selling at the same price. Among the items that went up are top grades of lumber, cement and house paint. The most significant reduction was reported for galvanized steel roofing. This item dropped 8 percent during the year while prices of asphalt shingles and composition roofing went up slightly and prices of wood shingles remained unchanged.

Prices of fencing materials are also about the same as they were a year ago. For these items it now takes nearly $2.35 to buy as much as $1.00 bought in 1935-39. Barbed wire is down about 20 to 25 cents a spool from a year ago but woven wire and wood posts are slightly higher. The materials for a 4-strand barbed wire fence cost about $1.49 per rod now compared with $1.50 a year ago. A fence consisting of 32-inch woven wire and 2 strands of barbed wire with alternate wood and steel posts set one rod apart requires about $2.19 worth of materials per rod, the same as a year ago (fig. 5). Included in the cost are 2 galvanized gates per mile of fence.

Prices paid by farmers for most miscellaneous farm supplies are as high if not higher than ever before. Important exceptions, however, are baler and binder twines which were about 10 percent lower in price in June 1953 than in June 1952. Present indications based on recent changes in manufacturers' prices are that retail prices of baler and binder twines may be another 10 percent lower in 1954 than they were in 1953. Mainly because of the reductions in prices of these items the index of prices paid by farmers for farm supplies was about 2 percent lower on December 15, 1953 than a year earlier.

Pesticides

Stocks of pesticides carried over from the 1953 season are considerably smaller than the large stocks of a year ago. However, much of the reduction is due to smaller stocks of DDT and of some other chlorinated synthetic insecticides. Carryover of benzene hexachloride are about 35 percent larger than a year ago.

Manufacturers' prices of pesticides are slightly higher than they were last fall. However, some manufacturers now pay part of the shipping costs which, in effect, offsets some of the increase in price. Prices quoted for DDT and BHC average more than one-fifth higher than last fall. A year ago prices were depressed by large stocks. Slightly higher prices this spring reflect the return to more normal stocks. In addition, there has been some increase in foreign demand for pesticides, particularly DDT.

Domestic consumption of pesticides may be somewhat higher in 1954 than in 1953. Farmers continue to change from the system of spraying or dusting only when insects and diseases threaten their crops to one of preventive spraying. In some areas the number of boll weevils which entered hibernation last fall was greater than in the last few years. In 1953 the infestation of corn borers was heavier than in 1952 in the north central and some of the eastern States. The large number of eggs laid by grasshoppers over extensive areas in the Midwest and Southwest threaten serious infestations in 1954. However, weather conditions and other natural factors will largely determine the seriousness of infestations as a whole.

The need for pesticides is determined by the severity of insect infestation, fungus infection, and weed growth, which cannot be reliably predicted. Shifts in acreage of particular crops do not affect consumption of pesticides in the United States as much as the year-to-year changes in the degree of infestation.

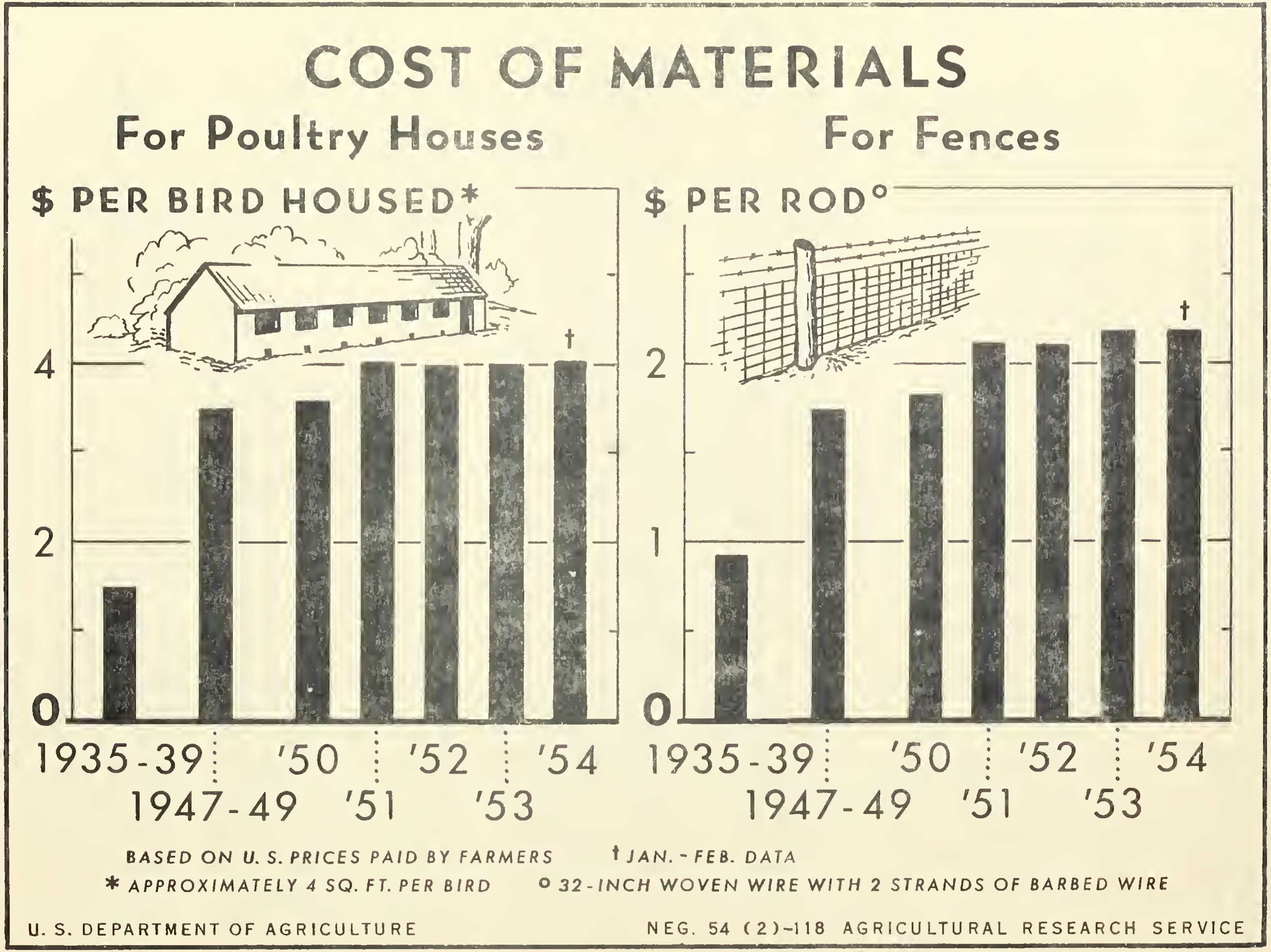

COST OF MATERIALS
For Poultry Houses
For Fences
$ PER BIRD HOUSED*
$ PER ROD°
0
2
4
0
1
2
†
†
1935-39
1947-49
'50
'51
'52
'53
'54
1935-39
1947-49
'50
'51
'52
'53
'54
BASED ON U. S. PRICES PAID BY FARMERS
† JAN. - FEB. DATA
* APPROXIMATELY 4 SQ. FT. PER BIRD
° 32-INCH WOVEN WIRE WITH 2 STRANDS OF BARBED WIRE
U. S. DEPARTMENT OF AGRICULTURE
NEG. 54 (2)-118 AGRICULTURAL RESEARCH SERVICE

FIGURE 5

Annual expenditures for pesticides vary considerably from year to year and from type of farm to type of farm. In 1953, for example, expenditures on family-operated cotton farms in the southern Piedmont area averaged around $55 per farm. In 1951 these pesticides would have cost nearly twice as much. However, these farmers spent around $80 for pesticides in 1951 as the quantities used were about a fifth less than in 1953. Expenditures in 1952 averaged about $40 per farm. These farms averaged 53 acres of crops harvested in 1953 of which 16 were cotton.

On some types of farms expenditures for insecticides are negligible. Annual expenditures for weed control materials on wheat-small grain-livestock farms in the northern plain averaged approximately $20 per farm in each of the last few years. These farms are much larger than the Piedmont cotton farms. They average about 475 acres per farm with over 300 acres in crops.

Farm Land Values and Rentals

Farm real estate prices will average slightly lower in 1954 than in 1953. Although the decline during 1953 was relatively small, last year was the first since 1949 that real estate values did not rise. Values last November averaged 3 percent lower than in July and 6 percent below a year earlier. The decline was somewhat larger in the areas where drought and the sharp break in cattle prices had the greatest effect on farm income. Ten States showed declines of 5 percent or more between July and November 1953. Most of these were in the area extending from Kentucky and Tennessee westward to Utah and Arizona. The smallest declines in land values occurred in the New England and Southeastern States. Current indications are that land values are about 8 to 10 percent higher than a year ago.

Past and current levels of farm real estate values can be illustrated best in terms of estimated market values for various types and sizes of commercial family-operated farms. Table 5 shows approximately what farms of various types and sizes cost now compared with what they would have cost before World War II (1937-41), before the Korean outbreak (1947-49), and when farm real estate values were at or near their peak (1952 and 1953). These estimates reflect changes in value per acre only, however, and make no allowance for the long-time upward trend in size of farms in areas and types of farms where increases in size have occurred. The additional capital needed for machinery and equipment and livestock is not included in these estimates. The investment required in these items has increased somewhat more than has land and buildings, so the total investment to buy and equip a farm has increased even more.

With modern machinery and equipment it takes more land to keep a farm family fully employed now than it did 15 years ago. The demand on the part of farm operators for additional land that would increase the efficiency of their operations plus the fact that farming has been relatively profitable in recent years accounts for much of the increase in value of farm real estate since 1940. Then too, farmers have improved their land and buildings considerably since 1940. In many instances, these improvements have involved substantial cash outlays.

Table 5.- Value of farm real estate January 1, by type and size of commercial family-operated farm, 1954 with comparisons

Location and type of farm	Total acres 1/	Average		1952	1953	1954
		1937-41	1947-49			
	Number	Dollars	Dollars	Dollars	Dollars	Dollars
Corn Belt farms:						
Cash grain	224	26,900	49,100	67,000	69,400	64,300
Hog-beef fattening	196	15,500	27,100	37,200	36,100	34,100
Hog-beef raising	212	8,500	16,300	22,900	22,000	20,600
Hog-dairy	160	10,900	19,500	24,800	25,400	23,800
Dairy farms:						
Western Wisconsin	139	6,000	9,900	12,000	11,700	11,000
Eastern Wisconsin	123	9,300	17,200	21,000	20,400	19,100
Central Northeast	195	5,800	10,100	11,900	12,500	11,500
Tobacco-livestock:						
Kentucky Bluegrass	113	8,100	15,400	20,300	19,800	18,100
Cotton farms:						
Southern Piedmont	162	3,700	8,900	11,200	11,500	11,000
Delta of Mississippi	45	3,100	7,600	10,100	10,400	9,800
High Plains, Texas	333	12,300	26,000	42,000	40,600	39,300
High Plains, Texas (irrigated)	299	2/	42,800	71,800	71,800	69,100
Black Prairie, Texas	165	8,600	14,200	20,800	20,100	19,500
Spring wheat farms (No. Plains):						
Wheat-corn-livestock	472	9,400	17,500	23,400	23,700	22,700
Wheat-small grain-livestock	670	10,700	18,100	24,500	24,600	23,700
Winter wheat farms (Pacific N.W.):						
Wheat-pea	507	33,500	88,700	113,600	110,500	105,000
Sheep ranches:						
Northern Plains	6,102	19,500	45,800	56,100	54,900	51,900
Cattle ranches:						
Northern Plains	3,990	14,000	39,100	43,500	42,500	39,500
Intermountain region	1,685	15,000	27,800	30,700	30,300	28,600

1/ Average per farm in 1952.
2/ Not available.

As the average farmer attaining ownership for the first time is seldom able to pay all cash for a farm, it is of interest to consider the average down payment and annual debt payment that would be required to purchase farms of the size and type indicated. For purposes of illustration, it is assumed that the down payment would be 50 percent of the purchase price and that the mortgage debt would be amortized in equal annual installments over a period of 20 years, with an interest rate of 4½ percent. Table 6 shows the approximate amounts that would be required in 1937-41, 1952 and 1954 for the down payment and the annual debt servicing cost under these assumptions.

With the long-term upward trend in farm real estate values apparently checked, it is even more important now than when values were increasing for prospective buyers to appraise a farm in terms of its debt paying capacity and to arrange for long-term financing wherever possible. For those farmers who are able to make a down payment of as much as half of the purchase price, the prospect of some further decline in real estate prices should not discourage the purchase of land needed to make an efficient operating unit. But the prospective buyer needs to assure himself that the additional land will add to production efficiency and to net income under prospective price-cost relationships. Tenants who are able to make a substantial down payment on the purchase of a productive farm and who cannot continue to rent a farm of comparable income capacity may find little advantage in delaying the step toward ownership, even though some saving in the initial cost of a farm might result from waiting.

As to how much a farmer can afford to pay for a farm depends largely on the income he can derive over the long term from his operations of the farm. Many factors such as price-cost relationships, management ability, size, efficiency, crop and livestock loss hazards, and so on determine income. Farm incomes have been relatively high in recent years. Table 7 shows what net farm income for each of several important types of farms was in 1952 and what it was for slightly smaller farms of similar types in 1937-41 and in 1947-49. Present values are not high in relation to farm incomes and prices of farm products in recent years. (Compare data in tables 5, 6, and 7 and figures 6 and 7, and see map for location of areas).

Rental Rates: Cash rents for farms may decline slightly in 1954 from the peak levels of recent years, largely because of lower returns from the farm products produced in areas where cash renting is common. Cash rents for hay and pasture lands also are likely to average a little lower because of the effects of the drought in 1953. However, the bulk of rental payments is in the form of a share of the crop produced and rental shares change slowly. Year-to-year changes in crop share rents are largely a reflection of yields and prices. With acreage allotments in effect for cotton, corn and wheat, the total value of crop share rents is likely to be less than in 1953.

Table 6.- Cost of farm real estate bought on credit, by type and size of commercial family-operated farm, 1954 with comparisons 1/

Location and type of farm	Average 1937-41		1952		1954	
	Down payment	Annual instalments	Down payment	Annual instalments	Down payment	Annual instalments
	Dollars 2/	Dollars 3/	Dollars 2/	Dollars 3/	Dollars 2/	Dollars 3/
Corn Belt farms:						
Cash grain	13,450	1,036	38,500	2,965	32,150	2,476
Hog-beef fattening	7,750	597	18,600	1,432	17,050	1,313
Hog-beef raising	4,250	327	11,450	882	10,300	793
Hog-dairy	5,450	420	12,400	955	11,900	916
Dairy farms:						
Western Wisconsin	3,000	231	6,000	462	5,500	424
Eastern Wisconsin	4,650	358	10,500	809	9,550	735
Central Northeast	2,900	223	5,950	458	5,750	443
Tobacco-livestock:						
Kentucky Bluegrass	4,050	312	10,150	782	9,050	697
Cotton farms:						
Southern Piedmont	1,850	142	5,600	431	5,500	424
Delta of Mississippi	1,550	119	5,050	389	4,900	377
High Plains, Texas	6,150	474	21,000	1,617	19,650	1,513
High Plains, Texas (irrigated)	4/	4/	35,900	2,764	34,550	2,660
Black Prairie, Texas	4,300	331	10,400	801	9,750	751
Spring wheat farms (No. Plains):						
Wheat-corn-livestock	4,700	362	11,700	901	11,350	874
Wheat-small grain-livestock	5,350	412	12,250	943	11,850	912
Winter wheat farms (Pacific N.W.):						
Wheat-pea	16,750	1,290	56,800	4,374	52,500	4,042
Sheep ranches:						
Northern Plains	9,750	751	28,050	2,160	25,950	1,998
Cattle ranches:						
Northern Plains	7,000	539	21,750	1,675	19,750	1,521
Intermountain region	7,500	578	15,350	1,182	14,300	1,101

1/ Data apply to average sizes of farms in 1952 shown in table 5.

2/ Assumed to be 50 percent of the market value.

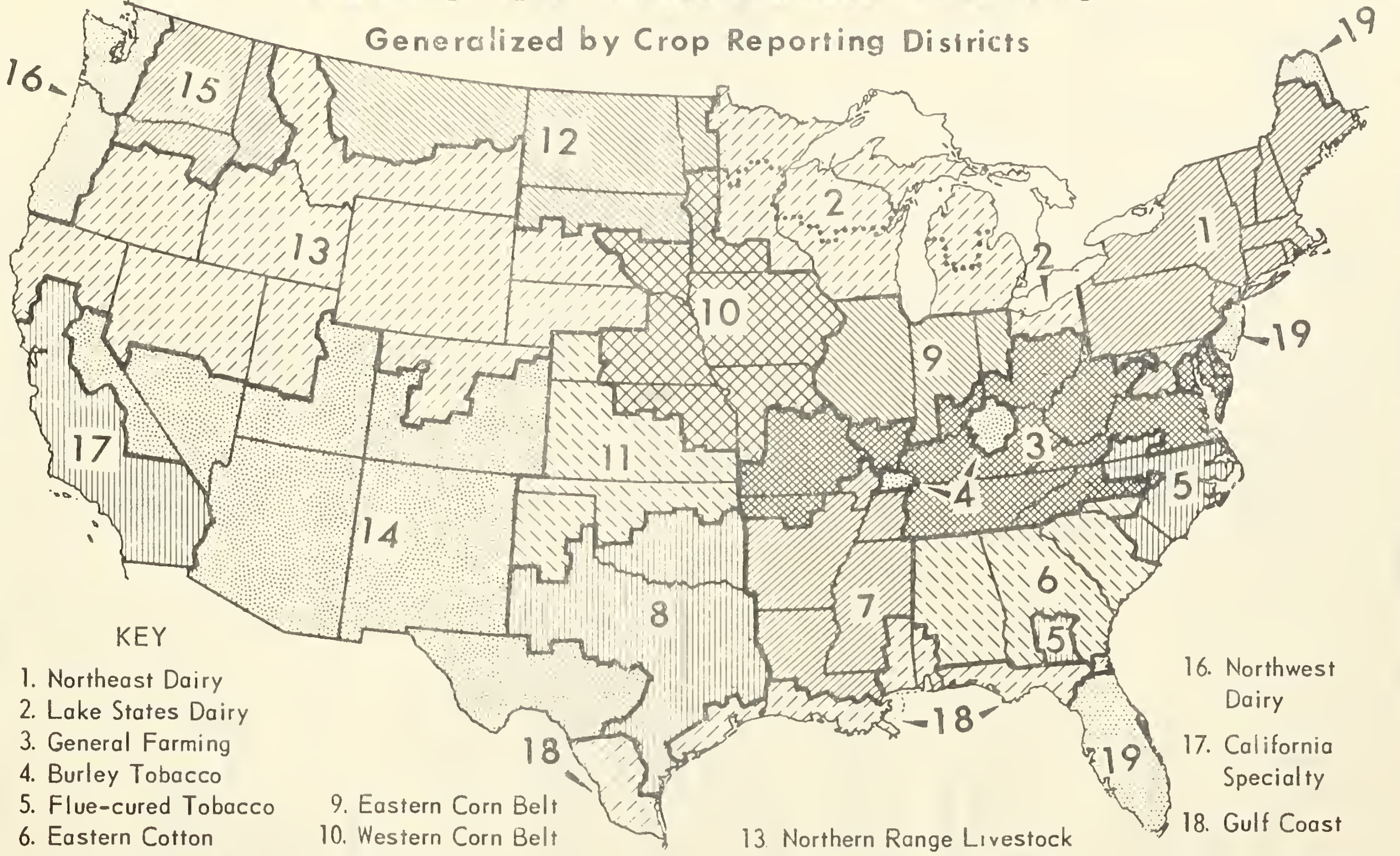
3/ Under standard 20-year annual payment amortization plan at 4 1/2 percent interest.

4/ Not available.

Table 7.- Net farm income by type and size of commercial family-operated farm, 1952 with comparisons

Location and type of farm	Acres per farm			Net farm income		
	Average		1952	Average		1952
	1937-41	1947-49		1937-41	1947-49	
	Number	Number	Number	Dollars	Dollars	Dollars
Corn Belt farms:						
Cash grain	209	222	224	2,656	9,032	10,459
Hog-beef fattening	178	192	196	2,519	10,666	8,721
Hog-beef raising	181	204	212	948	3,618	4,339
Hog-dairy	155	158	160	2,154	5,396	6,199
Dairy farms:						
Western Wisconsin	130	136	139	1,242	3,290	3,925
Eastern Wisconsin	115	120	123	1,521	4,350	4,711
Central Northeast	176	189	195	960	3,892	3,782
Tobacco-livestock:						
Kentucky Bluegrass	110	113	113	1,192	3,334	3,975
Cotton farms:						
Southern Piedmont	158	161	162	494	1,565	1,442
Delta of Mississippi	42	45	45	1,023	2,839	3,146
High Plains, Texas	258	309	333	1,675	6,445	5,632
High Plains, Texas (irrigated)	1/	271	299	1/	10,725	11,580
Black Prairie, Texas	140	157	165	1,052	3,177	3,323
Spring wheat farms (No. Plains):						
Wheat-corn-livestock	427	460	472	1,035	5,850	2,439
Wheat-small grain-livestock	497	621	670	872	6,323	3,616
Winter wheat farms(Pacific N.W.):						
Wheat-pea	416	481	507	2,766	11,861	14,033
Sheep ranches:						
Northern Plains	4,721	5,119	6,102	2,734	6,908	5,970
Cattle ranches:						
Northern Plains	3,322	3,800	3,990	980	6,466	5,942
Intermountain region	1,573	1,615	1,685	2,843	9,159	10,796

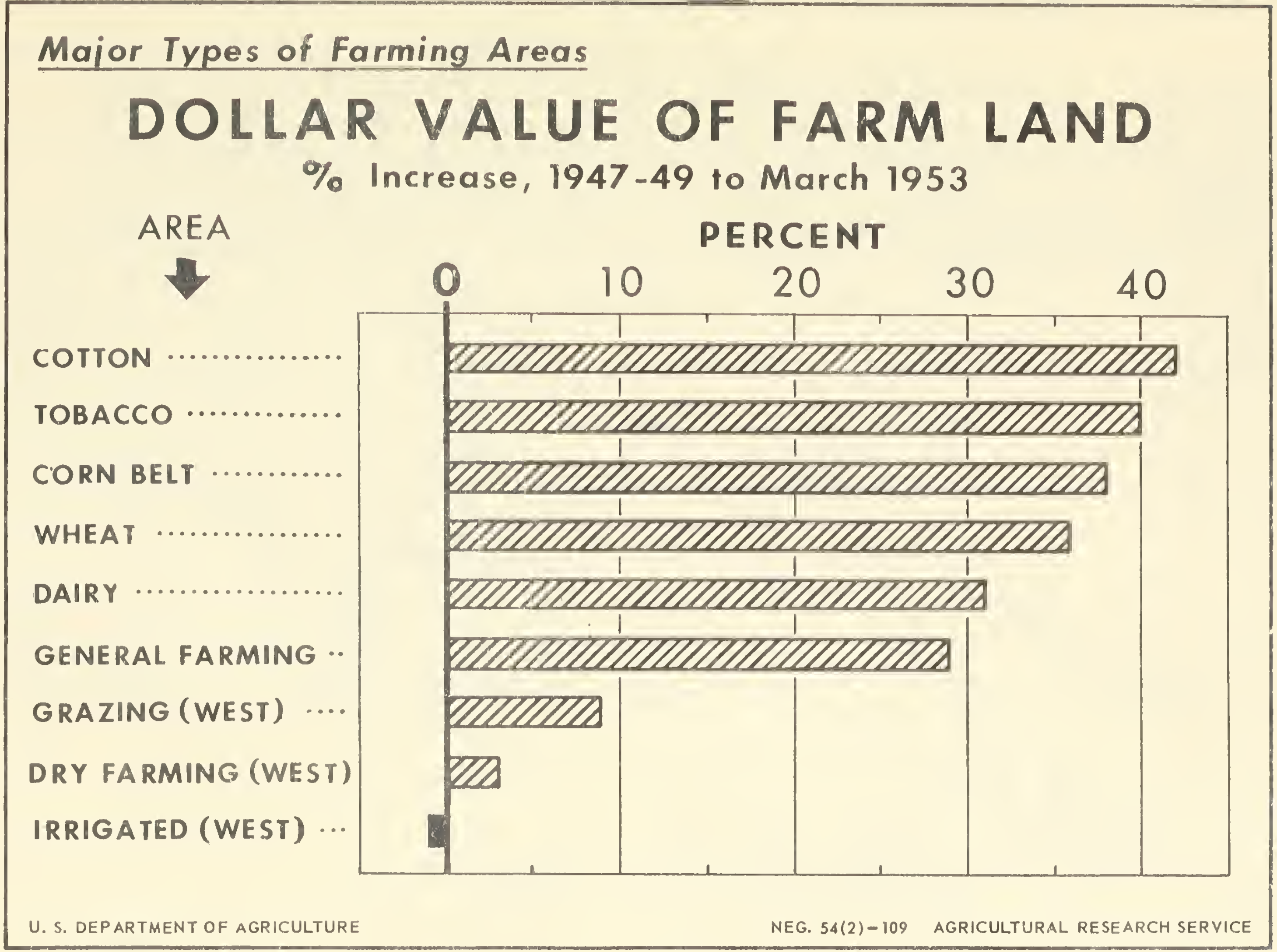
1/ Not available.



TYPES OF FARMING AREAS

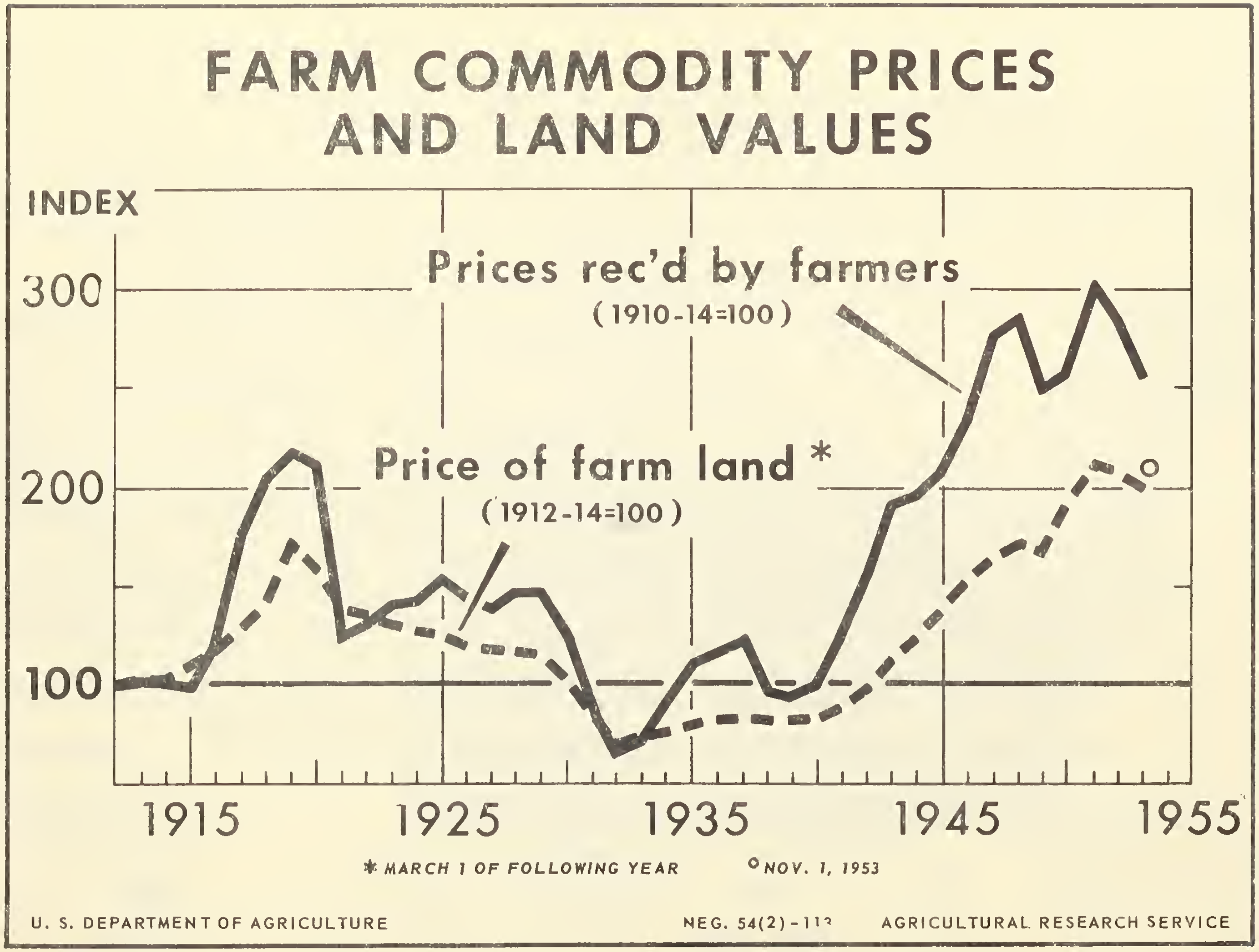
Generalized by Crop Reporting Districts

U. S. DEPARTMENT OF AGRICULTURE NEG. 54(2)-110 AGRICULTURAL RESEARCH SERVICE



Although farm land values in the country as a whole on March, 1953 averaged 27 percent higher than in 1947-49, some significant differences in the amount of increase since that period are apparent from area to area. In general, values had risen more in the eastern two thirds of the country than in the West. The cotton and tobacco areas showed the largest increase, 42 and 40 percent, respectively, followed closely by the corn and wheat areas. In the West, the value of grazing and dry farming land was only slightly higher than in 1947-49, while the value of irrigated land averaged a little lower. (See map for location of areas)

FIGURE 6



Farm land values tend to follow the major up and downswings in farm commodity prices but usually do not change as much. Thus, commodity prices rose 119 percent between 1915 and 1919 and land values increased 57 percent, or about half as much. About the same relationship prevailed between 1940 and 1948 when commodity prices increased 187 percent and land values increased 107 percent. Although minor changes in commodity prices are usually not too important in affecting real estate values, the post-Korean period was an exception. Commodity prices rose 21 percent from 1949 to 1951, but land values increased 26 percent. Apparently, the sharp increase in land values during this period was based to considerable extent on anticipated returns.

FIGURE 7

Interest, Taxes, and Insurance

Non-Real-Estate Credit - Interest charges on non-real-estate debt of farmers, excluding loans made or guaranteed by the Commodity Credit Corporation, are expected to be 5 to 10 percent lower in 1954 than in 1953. This will result mainly from a decline in the amount of credit used. During 1953 non-real-estate debt of farmers decreased about 10 percent and this trend is expected to continue in 1954 but at a slower rate. Interest rates will probably not change much.

The main cause, so far, of the decline in use of short-term credit and the resulting decline in non-real-estate debt has been the drop in livestock prices. As a result, such debt has declined more in the Midwestern and Western regions than elsewhere. Lower farm incomes, which have caused farmers to be more conservative, and a refinancing with long-term mortgages are other factors tending to reduce the use of this kind of credit. This cautious attitude may continue to be an important factor throughout 1954. It is probable that increasing amounts of non-real-estate debt will be refinanced with long-term farm mortgages.

Changes in the volume of non-real-estate credit used by farmers in 1954 probably will vary by regions. Those who produce wheat and cotton probably will reduce their use of credit more than other farmers because of acreage allotments and marketing quotas resulting in less direct outlay for specified crops. Livestock ranchers have already reduced their use of credit and may use less credit in 1954 than in 1953. On the other hand, cattle feeders may use more in 1954.

Average amounts of credit used by farmers are roughly proportionate to the size and value of their farm enterprises. Among borrowers of the production credit association, a loan of $40,000 is not exceptional for a rancher in the Northwest whereas loans of $1,000 or less are common among family-size tobacco and cotton growers. Because of such differences the savings in interest costs in 1954 will vary widely among individual farmers. For a rancher who borrows $40,000, a 10 percent decrease in credit used might result in savings in interest costs exceeding $200; for a farmer who borrows only $1,000, and that for only part of the year, the savings probably would not exceed $5 or $6.

Mortgage Interest Payments - Increasing farm-mortgage (real estate) debt will result in larger interest charges in 1954. Total interest charges on farm-mortgage debt this year probably will be about $380 million compared with a little less than $350 million in 1953. At the beginning of 1954 the total mortgage debt probably was between $7,700 million and $7,800 million, an increase of 8 to 9 percent above the $7,154 million outstanding a year earlier.

The upward movement of interest rates charged on new farm-mortgage loans, which began in 1951, apparently leveled off by early 1953. In March 1953 the average interest rate charged on farm-mortgage loans recorded was 4.97 percent compared with 4.74 percent in March 1951. Farm-mortgage interest rates have been relatively steady in the past year, and little or no change is expected during 1954. Mortgage money appears to have been more plentiful during the last four to six months, and lower interest yields on Government and corporate securities have removed much of the pressure for higher interest rates on farm mortgages.

Farmers apparently have increased their borrowing on real estate for the purpose of refinancing short-term indebtedness and for refinancing real estate mortgages written for short terms. In many cases such refinancing puts the farmer's financial affairs in better order, reduces his annual interest charges, and also reduces his annual principal payments. Lengthening the term of a mortgage from 10 to 20 years, for example, will make a 35 to 40 percent reduction in the annual payments needed to amortize a mortgage (table 8). The increased desire of farmers for longer-term amortized mortgages probably is responsible for the relatively large increase in mortgage loans made by life insurance companies and Federal land banks.

Table 8.- Annual payments required to amortize $1,000 of farm-mortgage indebtedness at various interest rates and terms (standard amortization plan)

Term	Interest rate per year				
	4.0 pct.	4.5 pct.	5.0 pct.	5.5 pct.	6.0 pct.
	Dollars	Dollars	Dollars	Dollars	Dollars
10 years	123	126	130	133	136
15 years	90	93	96	100	103
20 years	74	77	80	84	87
25 years	64	67	71	75	78

In 1954 farmers and others borrowing on farm real estate are likely to find mortgage money in fairly good supply with increased competition among lenders for the better types of loans or for loans in the better farming areas. Lenders report that they are putting more emphasis on the operating efficiency and expected income and expenses of prospective borrowers. Farmers with reasonable equities and good repayment prospects probably will experience little difficulty in obtaining mortgage credit. On the other hand, farmers with relatively small equities and relatively poor repayment abilities will find mortgage credit increasingly difficult to obtain.

About 59 percent of all sales of farm real estate involved credit in 1953--the highest percentage of credit financing in 10 years. For those sales involving credit in 1953 the debt incurred averaged about 57 percent of the sales price. This percentage was higher than in 1952 and 1951 and had not been exceeded since 1944.

A comparison of farm sales involving credit from 1951 to 1953 in 5 type-of-farming areas shows that the average value per farm sold, average mortgage debt, and average interest charge on original amount of the mortgage were higher in 1953 than in 1951 (table 9). However, in some areas estimates for 1953 were somewhat under 1952.

Table 9.- Sales of farm real estate involving credit average value, mortgage debt, and interest charge per farm sold, five type-of-farming areas, 1951-53

Item and year	Type-of-farming areas: Eastern dairy	Western Corn Belt	Spring wheat	Central cotton	Northern range livestock
	Dollars	Dollars	Dollars	Dollars	Dollars
Average value farm sold:					
1951	16,400	23,000	15,200	19,700	32,100
1952	15,400	24,700	21,400	27,300	36,000
1953	18,100	25,000	21,100	25,300	33,900
Average mortgage debt:					
1951	9,400	11,400	8,900	11,300	18,800
1952	8,700	12,200	13,000	16,100	20,700
1953	10,700	12,500	12,700	14,600	20,300
Average interest charge: 1/					
1951	450	470	440	610	920
1952	430	520	640	890	1,030
1953	550	550	620	820	1,030
Annual payment (principal and interest) 20-year amortized loan (assumed interest rate) 2/	(5.0 pct.)	(4.5 pct.)	(5.0 pct.)	(5.5 pct.)	(5.0 pct.)
1951	750	880	710	950	1,510
1952	700	940	1,040	1,350	1,660
1953	860	960	1,020	1,220	1,630

1/ Annual interest charge on original amount of farm mortgage at average interest rates charged on all new farm-mortgage loans.

2/ Assumed interest rates for amortization calculations do not correspond exactly to average interest rates charged on new farm-mortgage loans in specified areas and years.

In the western Corn Belt, for example, the average value of farms purchased on credit sales rose from $23,000 per farm in 1951 to $25,000 in 1953. The average mortgage increased from $11,400 in 1951 to $12,500 in 1953, and the corresponding estimated annual interest charge on the original amount of the mortgage increased from $470 to $550 (table 9). If the average mortgage indebtedness resulting from these farm real estate sales were financed at 4.5 percent and amortized over a 20-year period, the annual payments of principal and interest in 1953 would average $960 per farm compared with $880 in 1951, an increase of nearly 9 percent.

These annual payments may be more difficult for farmers to meet in 1954 because in some areas average net farm income may be slightly lower than in 1953. Net farm incomes in 1953 averaged lower than in 1952 and 1951. However, farm loan delinquencies are expected to continue very low with farmers generally meeting their scheduled mortgage interest and principal payments on time.

Taxes - Preliminary reports indicate that State and local taxes on farm real estate are continuing their upward trend. These taxes, levied in 1953 and payable largely in 1954, are expected to increase by 4 to 5 percent. Higher real estate taxes are expected in all but a few States.

A slight decline is expected in taxes levied on farm personal property throughout the country. The net effect probably will be a decrease of about 3 percent in the average farmer's property tax bill.

On a typical 160-acre hog-dairy farm in the Corn Belt, for example, taxes on real estate payable in 1953 were $330. An increase to about $340 is expected for 1954. Personal property taxes levied in 1953, payable largely in 1954, amounted to $148. The latter represents a slight decrease from the amount that would have been payable on the same property a year earlier.

Federal income tax liabilities of farmers on 1953 income are expected to show a decrease of about 10 percent from those on 1952 income. The drop is a result of lower net farm income, as Federal income tax rates were unchanged during 1953. The lower Federal income tax rates that became effective January 1, 1954 are expected to bring a further reduction in farmers' tax liabilities. For example, a farmer with a wife and two dependents, and having a net income (before exemptions) of $4,500 will owe $420 in Federal income tax payments in 1954 compared with $466 payable on the same income earned during 1953.

Insurance - Premiums and assessments paid by farmers to farm mutual insurance companies probably will increase by about 10 percent in 1954. Most policies are for 5-year terms and, when renewed in a period of rising replacement costs, the tendency is for the amounts of insurance to be increased so as to more nearly cover current valuations. As the rates charged by farm mutuals are not expected to increase, on the average (except for windstorm insurance), most of the increase in insurance costs of farmers will be due to the increased coverages.

If the buildings, machinery and equipment, livestock, and stored crops on 20 important types of commercial family-operated farms in several important type-of-farming areas had been insured against fire (and lightning) damage up to 75 percent of value in 1952, at average farm mutual rates for the respective areas, the average cost would have been about $50 per farm. The insurance on these 20 types of farms in 1954 probably would range from a low of less than $6,000 on Piedmont cotton farms to a high of around $70,000 on sheep ranches in the Intermountain region. The average insurance per farm probably would be about $27,000. The annual cost per farm probably would range from a low of a little over $28 on Piedmont cotton farms to a high of about $183 on Intermountain sheep ranches. The cost per $100 of insurance is approximately 26 cents in the Intermountain region compared with about 51 cents in the Piedmont area.

For the farm mutuals in the States in which these representative farms are located, the cost of insurance averaged about 21.6 cents per $100 of insurance in 1952, compared with 23.0 cents for the United States as a whole. Costs per $100 of insurance in 1954 will not differ much from those in 1952.

The safety funds or reserves for 1,777 farm mutuals, country-wide, averaged 50.7 cents per $100 of insurance in force at the end of 1952. These reserves may be drawn upon in the years of heavy losses, thus helping to stabilize farmers' assessment rates.

Cost Reduction Opportunities in Egg Production

During the last 20 years improvements in the efficiency of producing eggs and poultry meat have been among the more notable achievements in agriculture. From the early 1930's to 1953 egg production per layer has increased from 120 eggs annually to 181--an increase of 50 percent 1/. It takes less feed, labor, housing and other production facilities to keep 2 layers than would be required for 3 layers even though the increased production of eggs has brought some increase in the feed consumption per bird.

In commercial egg production the rate of lay is one of the most important factors in obtaining profits. These farms frequently produce 200 or more eggs per layer. Under price-cost conditions during recent years it is estimated that a production of at least 150 eggs per layer per year would be required to break even on such farms. Cost of feed is the largest item of expense and one on which it does not pay to skimp. It probably requires 100 to 120 eggs for most layers just to pay the cost of feed. Compared with other classes of livestock this is a relatively high output needed before profits begin to show up.

The chief reason for the high feed consumption by layers is the large proportion of the total feed used for maintenance. At the 150-egg level approximately 75 percent of the feed is needed for this purpose. Feed used for maintenance is quite constant, varying mostly

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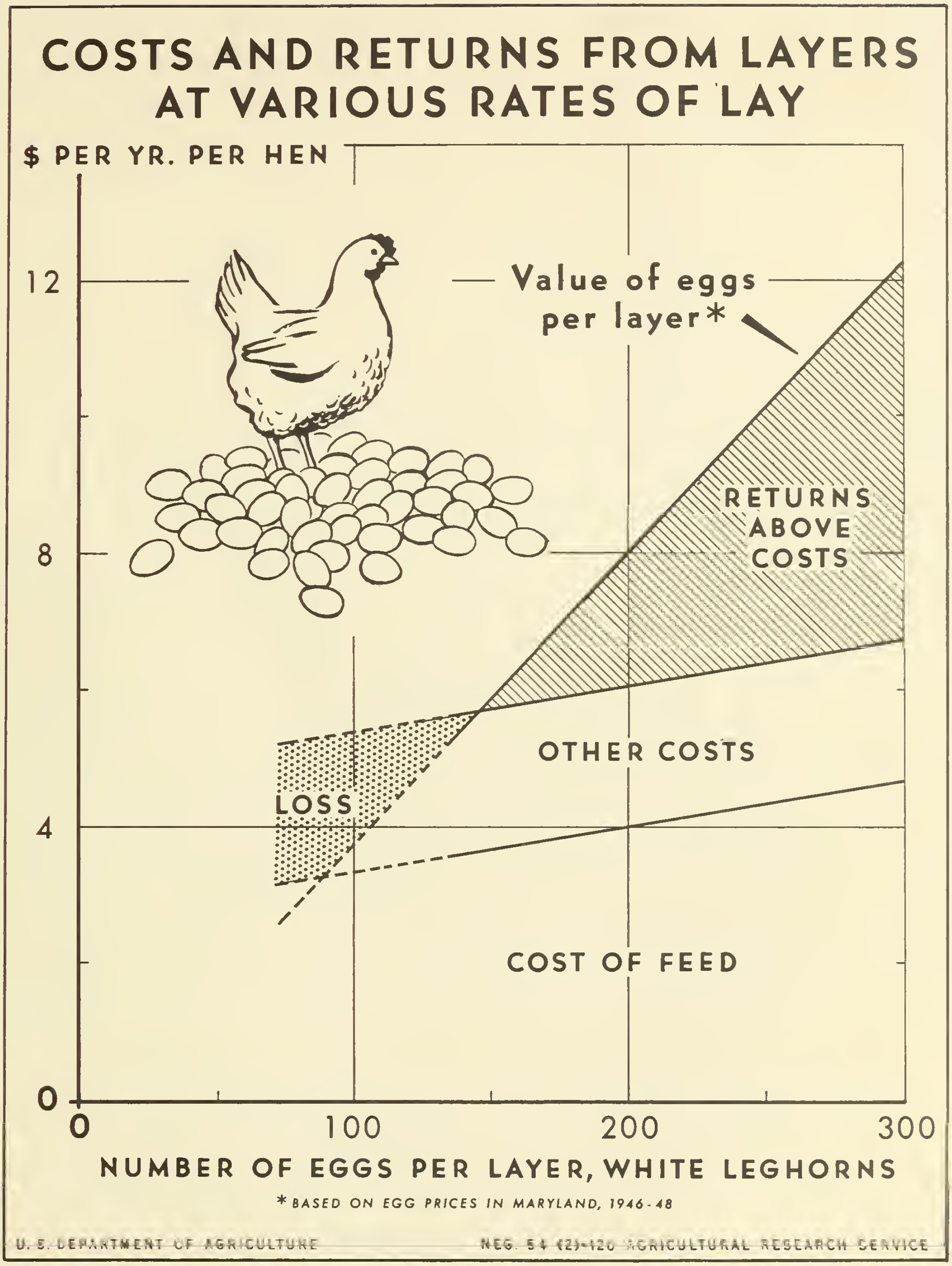
1/ Rate of lay here is number of eggs laid per year divided by the average number of layers during the year.

with the weight of the layer. It drops proportionately as the hen increases her total feed used to produce more eggs. Experimental results indicate that a reduction in the feed provided for laying hens, producing at their highest capacity, reduces egg production roughly twice as much percentage-wise as the decrease made in feed. It is clear, therefore, that it does not pay to economize on feed if a high return is expected from the laying flock.

High production per layer is the best way to obtain profits or reduce losses whether feed costs are high or egg prices are low. Figure 8 shows the importance of high production in obtaining large net returns. The increase in total income is usually larger than the increase in expense. With higher output a larger proportion of eggs is produced during the part of the year when prices are seasonally high because above average layers usually extend their laying period into the season when eggs are relatively high in price.

Figure 8 illustrates how the returns per layer go up as the rate of lay increases from 150 to 300 eggs. It is necessary to get a production per layer of more than 150 eggs before the net returns to commercial egg producers reach a significant level. Feed cost shows a comparatively small increase with the increased egg production; other costs, which include labor, remain almost constant. In periods of low returns, poultry farmers will not improve their returns by reducing the quality or amount of feed. The use of high-producing strains of chickens together with improved management, including culling of unproductive layers, is the best way to insure higher profits from the laying flock.



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High feed costs, primarily due to the large quantity of feed used for maintenance, makes it necessary to obtain a production per layer in excess of 150 eggs annually before net returns to commercial poultry farmers reach a significant level. Returns above this break-even point increase far more rapidly than costs.

FIGURE 8

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